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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/667,513	09/22/2000	Masaya Kimura	826.1625/JDH	9866
21171	7590	07/26/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			MILLS, DONALD L	
			ART UNIT	PAPER NUMBER
			2662	

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/667,513

Applicant(s)

KIMURA ET AL.

Examiner

Donald L. Mills

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to the Amendment filed May 9, 2005.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta (US 6,446,109 B2).

Referring to claims 1, 2, 3, 5, 15, 17 and 20, Gupta discloses a method of delivering resources used in a system where there plurality of relay devices (webtop servers) between a delivering source device (application server) which delivers resources and a terminal device (client) which receives the resources (Fig. 4 and 6), each of the relay devices (webtop servers) being respectively settled at corresponding location, comprising: notifying from the terminal device, which is connected to a first relay device located in a first location (client), to the delivering source device (application server) of information specifying resources to be delivered and a relay device (webtop server) for receiving the resources (col. 9, lns. 55-col. 10, lns. 2); delivering the resources specified by the notification from the delivering source device (application server) to the relay device (webtop server) specified by the notification (deliver and

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cache resources at the webtop server, col. 9, lns. 55-65); and delivering the resources from the relay device (webtop server) to the terminal device (client) according to an access from the terminal device (client, col. 9, lns. 55-65, the data is stored at the webtop server for future access to the resources without having to submit another request to the application server). Further regarding claim 5, Gupta discloses multiple clients can request the cached resources stored on the webtop server, as shown in figure 4.

Gupta does not disclose *a second relay device located in a second location for receiving and delivering the resources*. Gupta teaches a four-tier architecture that offers a level of decentralization wherein information needed by a client can be cached at local application servers referred to as webtop servers (See column 8, lines 6-11.) This would be useful in a wireless LAN setting where a user under the control of a first access point and webtop server, was handed off to another access point and a second webtop server.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to send the data from an application server to multiple webtop servers. One of ordinary skill in the art would have been motivated to do this since it would further reduce the number of accesses to the application server. For example, if a company installed a wireless LAN, and a client moved from one access point controlled by a first webtop server, to an access point controlled by a second webtop server, the user would have to again access the application server to download the program to the new webtop server. By sending the program to all of the webtop servers, only one transmission of the resources from the application server would be necessary so that continuous operation by the client would be permitted, as well as the advantages of mobility from the wireless LAN.

Referring to claim 4, Gupta discloses the method according to claim 3, but does not expressly disclose when the resources are delivered from the first relay device to the terminal device according to the access from the terminal device, the resources are deleted from the first relay device; the first relay device transmits a delivery completion notification to the second relay device; and the resources are deleted from the second relay device, when the second relay system receives the delivery completion notification. The system of Gupta modified in claim 3, could be further modified to where when a client moved from one webtop server to another, the cache of the previous webtop server is deleted. Due to space constraints in the cache, the cache is only intended to store the current or most frequently used programs used by the client. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the system of Gupta as modified in claim 3, with the ability to delete the redundant copy held on the webtop server not currently communicating with the client. One of ordinary skill in the art would have been motivated to do this since it allows the space of the cache to be efficiently used for all clients. As clients move with programs that may be less frequently used, clearly the cache once the client has been handed off would save space on the cache for more popular resources.

Referring to claim 6, the primary reference further teaches wherein the delivering source device does not deliver resources to the relay device when a notification of identical contents is received (col. 9, lns. 59-66).

Referring to claim 7, Gupta discloses a method of delivering resources used in a system where there are a plurality of relay devices (webtop servers) between a delivering source device (application server) which delivers resources and a terminal device (client) which receives the

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resources, comprising: notifying from the terminal device to the delivering source device of information specifying a relay device for receiving resources from the delivering source device; delivering resources from the delivering source device to the terminal device; delivering resources from the delivering source device to the relay device specified by the notification, when the delivering source device fails to deliver the resources to the terminal device; and delivering the resources from the relay device to the terminal device according to an access from the terminal device (Fig. 4 and 6, col. 9, lns. 55-col. 10, lns. 2). The application server would inherently have the ability to determine if it was directly connected to the client. If the application server fails to directly connect to and transmit data to the client, it would relay the information to the webtop server for transmission to the client.

Gutpa does not disclose *a second relay device located in a second location for receiving and delivering the resources*. Gupta teaches a four-tier architecture that offers a level of decentralization wherein information needed by a client can be cached at local application servers referred to as webtop servers (See column 8, lines 6-11.) This would be useful in a wireless LAN setting where a user under the control of a first access point and webtop server, was handed off to another access point and a second webtop server.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to send the data from an application server to multiple webtop servers. One of ordinary skill in the art would have been motivated to do this since it would further reduce the number of accesses to the application server. For example, if a company installed a wireless LAN, and a client moved from one access point controlled by a first webtop server, to an access point controlled by a second webtop server, the user would have to again access the application server

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to download the program to the new webtop server. By sending the program to all of the webtop servers, only one transmission of the resources from the application server would be necessary so that continuous operation by the client would be permitted, as well as the advantages of mobility from the wireless LAN.

Referring to claim 8, Gupta discloses a method of delivering resources used in a system where there are a plurality of relay devices (webtop server) between a delivering source device (application server) which delivers resources and a terminal device (client) which receives the resources, comprising: notifying from the terminal device (client) to the delivering source device of information specifying first [and second] relay devices for receiving resources from the delivering source device (application server); delivering resources from the delivering source device (application server) to the first relay device; [delivering resources from the delivering source device to the second relay device, when the delivering source device fails to deliver the resources to the first relay device]; and delivering the resources from the first [or second] relay device to the terminal device according to an access from the terminal device (client, Fig. 4 and 6, col. 9, lns. 55-col. 10, lns. 2).

Gupta does not expressly disclose sending the resources to multiple relay devices, or delivering the resources to a second relay device when the delivering fails to deliver the resources to a first relay device. The system of Gupta could be modified to have redundant webtop servers, wherein if the resources cannot be delivered to a first webtop server, the data is delivered to a second webtop server as specified by the client.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have the client specify multiple webtop servers for receiving resources, and to send

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the resources to the second webtop server when the first webtop server fails to receive the resources. One of ordinary skill in the art would have been motivated to do this since using redundant webtop servers allows for the system to transfer information when a server fails to work properly. The failure could be from the volume of clients overloading a server, maintenance downtime of a server, or a fault or failure of a server. Using a backup server allows the system to provide reliable service when problems are encountered.

Referring to claim 9, Gupta discloses a method of delivering resources used in a system where there are a plurality of relay devices between a delivering source device which delivers resources and a terminal device which receives the resources, comprising: setting same destination information specifying a plurality of terminal devices (clients) in a plurality of relay devices (webtop servers, Fig. 4 and 6); supplying resources provided from the delivering source device to the [plurality of] relay device[s]; the terminal device receiving the resources from [any relay device among] the [plurality of] relay device[s]; [and the plurality of relay devices notifying that the resources have been delivered to the terminal device each other, and discarding the resources when the resources are delivered to all of the plurality of terminal devices specified by the destination information.]

Gupta does not expressly disclose sending the data to multiple webtop servers, and that the webtop servers notify one another when the services have been transmitted to the client. Gupta also does not disclose discarding the resources when they are delivered to the client. The system of Gupta could be modified to be a system where the clients could attach to multiple webtop servers, such as in a wireless LAN environment, with access points corresponding to different webtop servers. When clients send requests to the webtop servers and the clients have

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received the data on the webtop services, the webtop servers notify one another that the data has been transmitted and clear the cache.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the system of Gupta, with multiple webtop servers communicating with multiple clients. When all of the clients have received the resources, the servers communicate with one another and discard the data. One of ordinary skill in the art would have been motivated to do this since it allows resources to be efficiently transferred from the application servers to the webtop servers and to a group of clients. This would be useful in an Internet setting in distributing new software programs to a group of users. The updates would only need to be sent whenever a change in the program occurred. The webtop servers would need to make sure that all users received the update by communicating with one another, and then discarding the data from the cache to accommodate services that occur more often.

Referring to claim 10, Gupta discloses a method of delivering resources used in a system where there is a relay device between a delivering source device which delivers resources and a terminal device which receives the resources, comprising: notifying from a first terminal device to the relay device of information specifying resources to be delivered; said relay device accessing a delivering source device which provides the specified resources, and obtaining the resources; delivering the resources from the relay device to the first terminal device according to an access from the first terminal device; and said relay device delivering the resources to a second terminal device without accessing the delivering source device when the information specifying the same resources obtained from the second terminal device (col. 9, lns. 55-col. 10,

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Ins. 2). The webtop server caches the data from the application server to minimize the amount of data transferred from the application servers.

Gutpa does not disclose *a second relay device located in a second location for receiving and delivering the resources*. Gupta teaches a four-tier architecture that offers a level of decentralization wherein information needed by a client can be cached at local application servers referred to as webtop servers (See column 8, lines 6-11.) This would be useful in a wireless LAN setting where a user under the control of a first access point and webtop server, was handed off to another access point and a second webtop server.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to send the data from an application server to multiple webtop servers. One of ordinary skill in the art would have been motivated to do this since it would further reduce the number of accesses to the application server. For example, if a company installed a wireless LAN, and a client moved from one access point controlled by a first webtop server, to an access point controlled by a second webtop server, the user would have to again access the application server to download the program to the new webtop server. By sending the program to all of the webtop servers, only one transmission of the resources from the application server would be necessary so that continuous operation by the client would be permitted, as well as the advantages of mobility from the wireless LAN.

Referring to claim 11, Gupta discloses a method of delivering resources used in a system where there are a plurality of relay devices between a delivering source device which delivers resources and a terminal device which receives the resources, comprising: notifying from the terminal device to a first relay device of information specifying resources to be delivered; the

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first relay device accessing a delivering source device which provides the specified resources, and obtaining the resources (Fig. 4 and 6, col. 9, lns. 55-col. 10, lns. 2); [delivering the resources from the first relay device to a second relay device]; and delivering the resources from the first [or second] relay device to the terminal device according to an access from the terminal device (col. 9, lns. 55-col. 10, lns. 2).

Gupta does not expressly disclose delivering resources to multiple webtop servers. The system of Gupta could be modified to have redundant webtop servers, wherein if the resources cannot be delivered to a first webtop server, the data is delivered to a second webtop server as specified by the client.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have the client specify multiple webtop servers for receiving resources, and to send the resources to the second webtop server when the first webtop server fails to receive the resources. One of ordinary skill in the art would have been motivated to do this since using redundant webtop servers allows for the system to transfer information when a server fails to work properly. The failure could be from the volume of clients overloading a server, maintenance downtime of a server, or a fault or failure of a server. Using a backup server allows the system to provide reliable service when problems are encountered.

Referring to claim 12, the primary reference further teaches wherein a logical identifier is used as information identifying the terminal device. The system inherently has identifiers to separate the clients attached to the webtop servers.

Referring to claim 13, Gupta discloses a method of delivering resources used in a system where there are a plurality of relay devices between a delivering source device which delivers

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resources and a terminal device which receives the resources, and where the resources are delivered from the delivering source device to the terminal device through a relay device, wherein one of [a first method in which resources are delivered from the delivering source system to all relay devices, a second method in which resources are delivered only to a relay device specified by the mobile terminal device,] and a third method in which resources are delivered to a relay device (webtop server) which receives information for specification of resources from the terminal device is selected and executed (Fig. 4 and 6, col. 9, lns. 55-col. 10, lns. 2). The webtop server receives requests for resources from the client, and selects and executes the appropriate actions to acquire the resources.

Gupta does not expressly disclose delivering resources to multiple webtop servers in different locations. The system of Gupta could be modified to have redundant webtop servers, wherein if the resources cannot be delivered to a first webtop server, the data is delivered to a second webtop server as specified by the client.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have the client specify multiple webtop servers for receiving resources, and to send the resources to the second webtop server when the first webtop server fails to receive the resources. One of ordinary skill in the art would have been motivated to do this since using redundant webtop servers allows for the system to transfer information when a server fails to work properly. The failure could be from the volume of clients overloading a server, maintenance downtime of a server, or a fault or failure of a server. Using a backup server allows the system to provide reliable service when problems are encountered.

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Referring to claim 14, Gupta discloses a resource delivering apparatus, used in a system including a plurality of relay devices and a terminal device which can access the plurality of relay devices, each of the relay devices being respectively settled at a corresponding location, which delivers resources at a request from a terminal device, comprising: an analysis unit receiving information from the terminal device and analyzing it (application server receives the request), the information specifying a relay device which can be accessed by the terminal device (the information will inherently contain which webtop server to send the data to); and a delivering unit delivering resources to a relay device specified by the information based on the analysis result obtained by said analysis unit (col. 9, lns. 55-col. 10, lns 2).

Gupta does not expressly disclose delivering resources to multiple webtop servers in different locations. The system of Gupta could be modified to have redundant webtop servers, wherein if the resources cannot be delivered to a first webtop server, the data is delivered to a second webtop server as specified by the client.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have the client specify multiple webtop servers for receiving resources, and to send the resources to the second webtop server when the first webtop server fails to receive the resources. One of ordinary skill in the art would have been motivated to do this since using redundant webtop servers allows for the system to transfer information when a server fails to work properly. The failure could be from the volume of clients overloading a server, maintenance downtime of a server, or a fault or failure of a server. Using a backup server allows the system to provide reliable service when problems are encountered.

Referring to claim 16, Gupta discloses a computer-readable storage medium, used in a system including a plurality of relay devices and a terminal device which can access the plurality of relay devices, each of the relay devices being respectively settled at a corresponding location, storing a program to be executed by a computer used in a system where there are a plurality of relay devices between a delivering source device which delivers resources and a terminal device which receives the resources, comprising: a first program code receiving information from the terminal device and analyzing it, the information specifying a relay device which can be accessed by the terminal device; and a second program code delivering resources to a relay device specified by the information (Fig. 4 and 6, col. 9, lns. 55-col. 10, lns 2).

Gupta does not expressly disclose delivering resources to multiple webtop servers in different locations. The system of Gupta could be modified to have redundant webtop servers, wherein if the resources cannot be delivered to a first webtop server, the data is delivered to a second webtop server as specified by the client.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have the client specify multiple webtop servers for receiving resources, and to send the resources to the second webtop server when the first webtop server fails to receive the resources. One of ordinary skill in the art would have been motivated to do this since using redundant webtop servers allows for the system to transfer information when a server fails to work properly. The failure could be from the volume of clients overloading a server, maintenance downtime of a server, or a fault or failure of a server. Using a backup server allows the system to provide reliable service when problems are encountered.

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Referring to claim 18, Gupta discloses a system for delivering resources, comprising: a delivering source device (application server) which delivers a resource; a first terminal device (client) which transmits information to the delivering source device and which receives the resource; a second terminal device; and a plurality of relay devices (webtop servers) disposed between the delivering source device and the first and second terminal devices, wherein the information specifies at least one of the relay devices, wherein the specified relay device receives the resource from the delivering source device, and wherein the second terminal device receives the resource from the specified relay device after the first terminal device receives the resource (col. 9, lns. 55-62). When the webtop server has cached a resource from an application server, any client attached to that webtop server can use those resources without having to retransmit the data from the application server to the webtop server.

Gupta does not expressly disclose delivering resources to multiple webtop servers in different locations. The system of Gupta could be modified to have redundant webtop servers, wherein if the resources cannot be delivered to a first webtop server, the data is delivered to a second webtop server as specified by the client.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have the client specify multiple webtop servers for receiving resources, and to send the resources to the second webtop server when the first webtop server fails to receive the resources. One of ordinary skill in the art would have been motivated to do this since using redundant webtop servers allows for the system to transfer information when a server fails to work properly. The failure could be from the volume of clients overloading a server,

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maintenance downtime of a server, or a fault or failure of a server. Using a backup server allows the system to provide reliable service when problems are encountered.

Referring to claim 19, the primary reference further teaches wherein the delivering source device does not deliver a resource to the relay device when a notification of identical contents is received (col. 9, lns. 55-col. 10, lns. 2).

Response to Arguments

4. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Mills whose telephone number is 571-272-3094. The examiner can normally be reached on 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

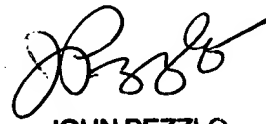
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Donald L Mills

DLM

July 24, 2005


JOHN PEZZLO
PRIMARY EXAMINER